AMENDMENT OF CLAIMS

Claims 1-6 (canceled)

Claim 7 (amended):

7. A vertical take-off landing hovercraft comprising:

a fuselage arranged with respect to a longitudinal axis in a horizontal plane thereof and a vertical axis normal to the horizontal plane;

at least one air thrust engine mounted inside of a hollow toroidal-shaped engine duct with a center axis thereof aligned with the vertical axis of said fuselage having an impeller rotor formed with impeller blades arranged in a plane around a central hub with their ends fixed to an annular impeller disk rotatable about its rotational axis to propel a downward flow of air to a lower open end of said vertically-aligned toroidal-shaped duct so as to provide vertical lift to the hovercraft, a magnetic bearing system for suspending the impeller rotor in its mounting with said fuselage, and a magnetic induction drive formed with a ring of magnetic induction actuators positioned proximate said impeller disk for driving the impeller disk in rotation by magnetic induction,

wherein said at least one air thrust engine is mounted with [said fuselage with] the rotational axis of its impeller rotor aligned with the vertical axis of said fuselage to provide said downward flow of air through the lower open end of said vertically-aligned toroidal-shaped duct so as to provide vertical lift for the hovercraft;

a vane assembly mounted across the lower open end of said vertically-aligned toroidal-shaped duct [located] below said air thrust engine having at least one vane element mounted therewith which is angularly rotatable for directing at least a part of the downward flow of air at an angle to the vertical axis to provide a horizontal thrust component for steering the hovercraft translationally in horizontal flight; and

an electric power supply carried in said fuselage for supplying electric power to said magnetic induction drive for driving said at least one impeller rotor.

Claim 8 (amended):

8. A vertical take-off landing hovercraft according to Claim 7, having one thrust engine positioned in the center of said fuselage and formed with a series of impeller rotors

contained in a shroud formed in said toroidal-shaped engine duct and delivering a flow of air through [a thrust-flow channel] the lower open end thereof supported in a bottom part of the fuselage.

Claim 9 (previously added):

9. A vertical take-off landing hovercraft according to Claim 8, wherein said fuselage has a toroidal shaped main body.

Claim 10 (previously added):

10. A vertical take-off landing hovercraft according to Claim 7, wherein a cargo area is provided in a lower part of said fuselage.

Claim 11 (previously added):

11. A vertical take-off landing hovercraft according to Claim 7, wherein a landing gear is provided extending from a lower part of said fuselage.

Claim 12 (previously added):

12. A vertical take-off landing hovercraft according to Claim 7, wherein said landing gear is formed with at least three spaced struts having landing wheels.

Claim 13 (previously added):

13. A vertical take-off landing hovercraft according to Claim 7, wherein said fuselage is provided with external airflow fins arranged is balanced configuration about the longitudinal axis for forward flight.

Claim 14 (previously added):

14. A vertical take-off landing hovercraft according to Claim 13, wherein said fins include steering rudders.

Claim 15 (previously added):

15. A vertical take-off landing hovercraft according to Claim 7, wherein said electric power supply is provided with batteries.

Claim 16 (previously added):

16. A vertical take-off landing hovercraft according to Claim 7, wherein said electric power supply includes a battery charger.

Claim 17 (previously added):

17. A vertical take-off landing hovercraft according to Claim 7, wherein said air thrust engine is operated by control algorithms to control the driving of its impeller rotor.

Claim 18 (previously added):

18. A vertical take-off landing hovercraft according to Claim 7, adapted for manned flight, wherein a cockpit is provided at an upper part of said fuselage.

Claim 19 (previously added):

19. A vertical take-off landing hovercraft according to Claim 7, comprising two air thrust engines arranged fore and aft along the longitudinal axis of said fuselage.

Claim 20 (previously added):

20. A vertical take-off landing hovercraft according to Claim 19, adapted for manned flight as a hoverbike, wherein a seat and handlebar flight control assembly is provided at an upper part of said fuselage.

Claim 21 (previously added):

21. A vertical take-off landing hovercraft according to Claim 19, wherein a cockpit is provided on an upper part and/or a lower part of said fuselage.

Claim 22 (previously added):

22. A vertical take-off landing hovercraft according to Claim 7, comprising three air thrust engines, one being arranged fore along the longitudinal axis of said fuselage, and two others being spaced apart in symmetric configuration on each side of the longitudinal axis aft of said fuselage.

Claim 23 (previously added):

23. A vertical take-off landing hovercraft according to Claim 7, comprising four air thrust engines, two being arranged fore and aft along the longitudinal axis of said fuselage, and two others being spaced apart in symmetric configuration on each side of the longitudinal axis in a mid-section of said fuselage.

Claim 24 (previously added):

24. A vertical take-off landing hovercraft according to Claim 7, comprising five air thrust engines, two being arranged fore spaced apart in symmetric configuration on each side of the longitudinal axis, two others being spaced apart in symmetric configuration on each side of the longitudinal axis in a mid-section of said fuselage, and one other being arranged aft of the longitudinal axis of said fuselage.

Claims 25-26 (cancelled)

Claim 27 (added)

27. A vertical take-off landing hovercraft according to Claim 7, wherein the vane assembly includes an outer ring attached to the fuselage across the lower open end of the toroidal-shaped engine duct, an inner vane ring rotatably mounted concentrically with said outer ring and driven by a first servomechanism for rotation in the horizontal plane of the fuselage, and the at least one vane element mounted to the inner vane ring and driven by a second servomechanism for rotation to form a deflecting surface at an angle to the vertical axis of the fuselage in order to deflect at least a part of the downward flow of air at an angle providing a horizontal thrust component for steering the hovercraft translationally in horizontal flight.